



RMP Creation Guide V1.2

Creating Real Metadata Package (RMP) files

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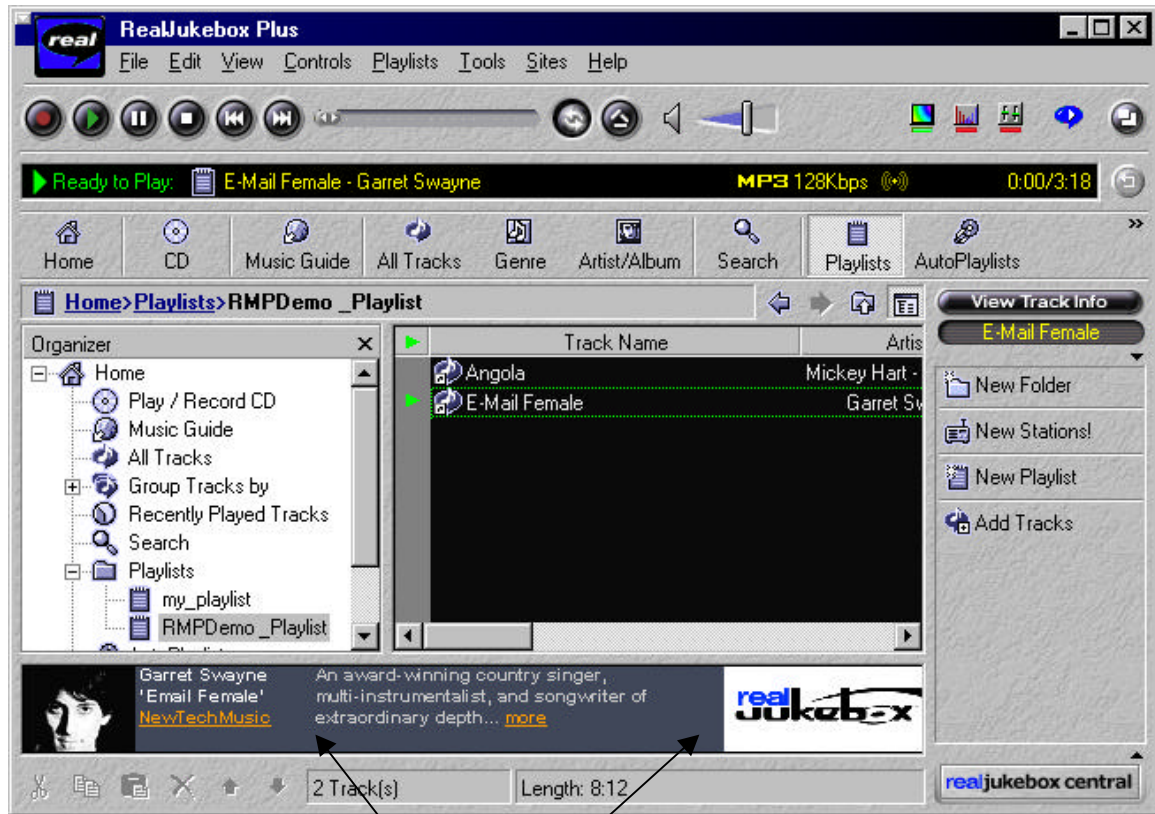
Overview

The Real Metadata Package (RMP) format has been developed to add to the way people experience music while at the same time giving content creators a better way to communicate with their customers. RMP files are based on the open industry standard XML (eXtensible Markup Language) and are therefore straightforward to create and use. The RMP file format will continue to evolve and support more functionality over time. Make sure to register your name on the RMP content creation Web site (<http://www.realnworks.com/devzone/howto/contentcreation/rmp/index.html>) so we can keep you up to date on the latest developments.

Add to the Music Experience

RMP's can improve your customers' music experience by incorporating other relevant content with your music downloads – content that can also help drive traffic back to your Web site. More specifically, with a single link you can:

- Download multiple songs at once in a song pack. Songs can be encoded in RealAudio, mp3, LiquidAudio, AT&T's a2b, Mjuice or Wave format.
- Include custom RealJukebox faceplates or 'skins', which are automatically installed.
- Attach a graphical banner or "Music Info Panel" (MIP) to a song so that it is displayed when the song is selected. This MIP is a W3C standard SMIL-based display and can contain images, formatted text, and animation and even video.
- Automatically load the songs into your customer's RealJukebox, create a playlist to contain them and begin playback.

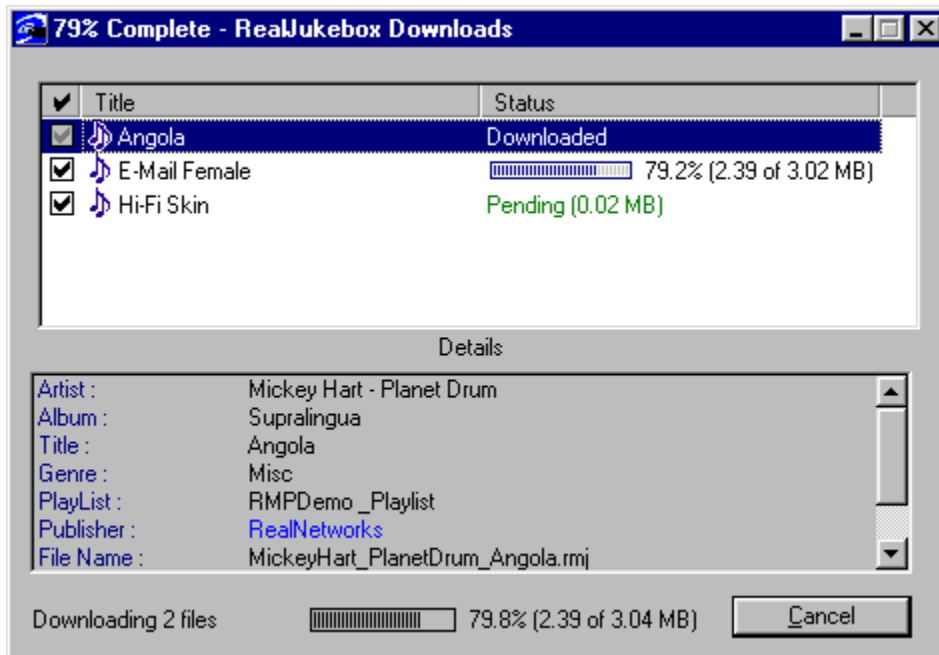


Music Info Panel (MIP) – link to your site, the band site or anywhere else!

Both the skins and the MIP can contain links to your Web site or any other relevant Web site.

In addition to the extra convenience and fun afforded by the content downloaded with your music, RMPs make the actual downloading experience better too! They allow users to:

- See information about songs as they are being downloaded
- Easily identify and restart failed music downloads



Increased Content Provider Control

When setting up music for customer access on the Internet, content providers can configure RMPs that refer to a variety of locations on servers. The customer need only click one web link, but the music and other content files can come from a variety of locations. The content provider also has control over metadata of the music files themselves, such as copyright information.

The ability to create custom MIP's and skins provides great brand and traffic building potential to content providers. The MIP is a fully functional SMIL (Synchronized Multimedia Integration Language) presentation that can contain graphics, text, animation and even video! MIPs can also contain web links to drive traffic back to your Web site. While these presentations are fully customizable, we have provided a template as part of the attached files to make your first creations as easy as possible. The RealJukebox user interface (UI) displays the MIP whenever the music file is selected.

Skins are also a great branding opportunity. Check out the attached RealJukebox Skins Creation Guide to see how to make a great looking skin that can be automatically loaded into RealJukebox and also provides a link back to your site.

About this Document

This document is targeted to content providers who are interested in building RMPs for download off the Internet. It provides an integrated explanation of the features, but it will require you to access the sample files in order to complete the steps of RMP creation. The sample files are all commented, so you should be able to locate the place for you to customize the sample files for your own use with little difficulty.

It is recommended to walk through all steps of RMPs in one sitting even if you only plan to use a subset of the features. This will reduce ramp-up time later. Once you are familiar with the RMP creation process, creating these packages should be very fast, especially for the basic packages.

Components included in rmp_toolkit.exe

We have included a selection of files in the rmp_toolkit.exe file (available from the RMP development section on www.real.com) which will help you understand how to build RMP files:

<i>Rmp creation guide V12.doc</i>	MS Word 97 version of the RMP creation guide
<i>Rmp_docv12.pdf</i>	Adobe Acrobat version of above (Acrobat reader available free from www.adobe.com)
<i>Skins creation guide V11.doc</i>	MS Word 97 version of the skins creation guide
<i>Skins_docv11.pdf</i>	Adobe Acrobat version of above
<i>Rmp_demo.rmp</i>	example of an rmp file
<i>Sample.rjm</i>	contains metadata about a sample SMIL presentation
<i>Sample1.smi</i>	sample SMIL presentation
<i>Sampletext.rt</i>	sample realtext used in SMIL presentation
<i>Sampleanim.gif</i>	sample graphic used in SMIL presentation
<i>Samplelogo.gif</i>	sample graphic used in SMIL presentation
<i>Page me.zip</i>	sample skin
<i>Rj_rmp.gif</i>	a logo you can use on your site to show off your rmps: 

Print this Document

Now is a good time to print out this document so that you can refer to it more easily while working on your computer. Use pencil to check off the steps, etc. Start with “Steps to Creating RMPs”.

Download experience

When a visitor to your site clicks on an RMP link, RealJukebox is automatically launched, and the download manager also appears, letting the user select specific tracks to download (if they choose). The download process begins automatically.

Playback experience

When the user selects or plays the track from the music library section of RealJukebox, the MIP is displayed.

Steps to Creating RMPs

Encode your Music Files

You can use RealJukebox or any other program capable of encoding music (from CDs or any other source) into any of the following formats:

- RealAudio
- MP3
- LiquidAudio
- a2b

If you use a format that contains an expiration date, such as Liquid Audio, RealJukebox will support this behavior. The Liquid Audio renderer itself will bring up a message saying that the track that the user is trying to play has expired. The user will be able to view the MIP content even on expired tracks, so users can return to the original site to get new tracks if available.

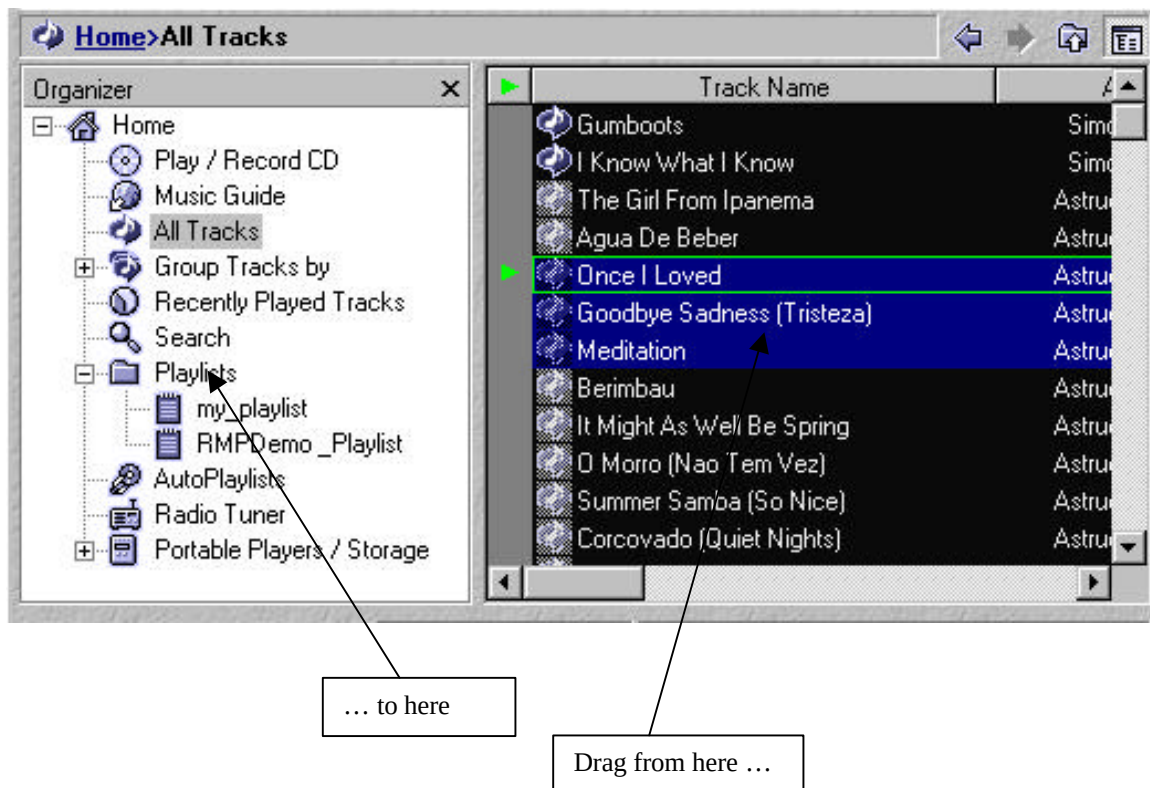
Create a Valid .rmp File

The recommended way to start creating a .rmp file for your encoded files is to first import them into RealJukebox. You can do this through the Open...Import Files menu item, or drag from the desktop onto RealJukebox. Imported tracks will show up in the in the “All Tracks” section of the Music Library. If there is no track name, artist, album etc information (meta-info) associated with the music files, this is a good time to add it. If there is information already associated with the music track, you can also use the following steps to edit this information.

RealJukebox Plus users: For each track that you intend to include in the RMP, right-click on the track and select Edit Track Properties. You can use the properties dialog in RealJukebox Plus to edit the artist name, etc. for that track. If you have several tracks with the same properties, you can multiselect the tracks, right-click, and edit the entire selection with one dialog. After you are done entering the meta-info with properties, click on the OK button to write your new meta-info into the music files themselves.

Free RealJukebox users: Either select the track and then press the F2 key or right click on the track and then select "Rename Track". Use the Tab key to move through and edit the different information associated with the track.

Now, create a playlist that contains just the tracks that you want to package. An easy way to do this is to select all the tracks that you want to include (using a combination of mouse clicks and the shift or ctrl keys). Next click on one of the selected tracks holding the mouse down so that you are dragging the tracks as a group. Drop the tracks (release the mouse button) onto the "playlists" node in the left window panel. A dialog will appear asking you for the playlist name. Name it "my_playlist" and hit OK. (You can name the playlist anything you like, but this document will be easier to understand if you follow the suggested naming the first time through).

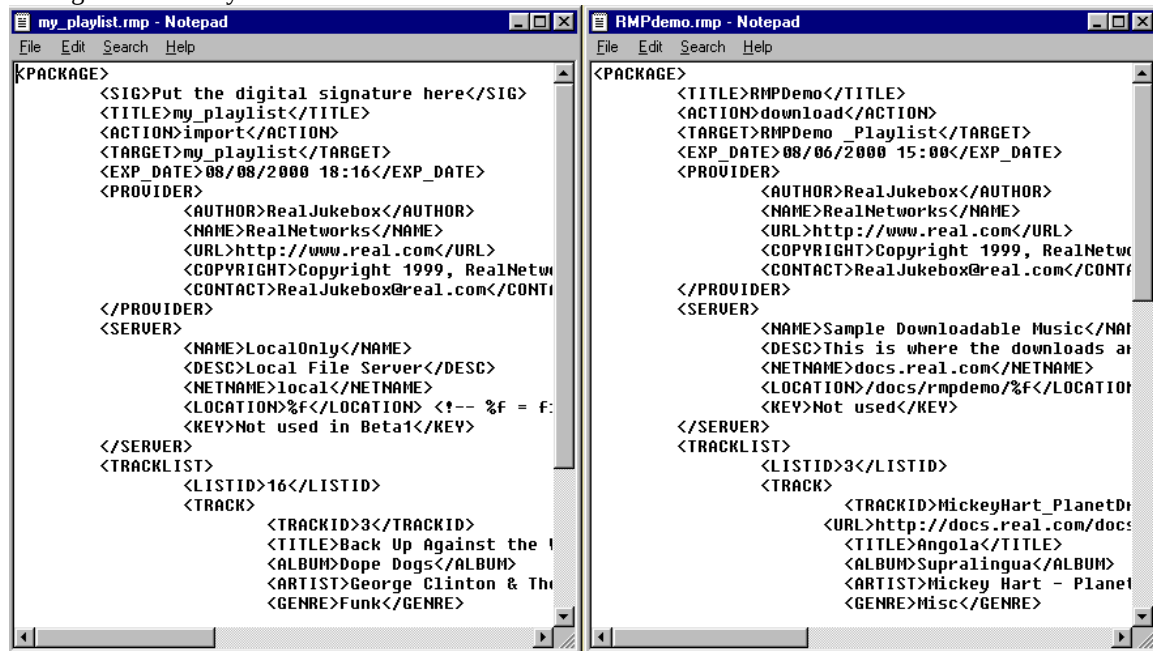


Find the playlist named "my_playlist" that is under the Playlists node. Now, export your playlist by right-clicking on the playlist icon. There is a menu item called export. Save the exported file to your desktop as my_playlist.rmp

Now you will go through the process of customizing my_playlist.rmp for online use. The best way to do this is with two open instances of Notepad. You can find Notepad by clicking on the Windows Start button (bottom left of your screen), selecting "Programs" then "Accessories". First, open my_playlist.rmp into

Notepad, and set the window up as a column taking up half your screen. Next, open sample.rmp which came with this document, also in Notepad, in another column taking up the other half of your screen.

Arrange them so they look like this:



You will be editing my_playlist.rmp so that it is customized for your music tracks, and any other RMP data you may wish to include (MIP, skins etc). Sample.rmp provides an example of what my_playlist.rmp will look like when you are done.

To start making your modifications, use the table below. Find the location in the left column in my_playlist.rmp, and take the action described in the right column. If necessary, refer to sample.rmp for a working example.

Item to change in my_playlist.rmp	Action to take
<ACTION>import</ACTION>	Change to <ACTION>download</ACTION>
<TARGET>my_playlist</TARGET>	Rename to the playlist that you would like created on the user's machine (such as Cool New Hits)
<AUTHOR>RealJukebox</AUTHOR>	This is typically the artist name
<NAME>RealNetworks</NAME>	This is typically the record company name
<URL>http://www.real.com</URL>	Replace this URL with the URL that users will access in order to get this music.
<COPYRIGHT>Copyright 1999, RealNetworks</COPYRIGHT>	Typically a record company copyright
<CONTACT>RealJukebox@real.com</CONTACT>	An email for the user to contact if they are having trouble with the download
<NAME>LocalOnly</NAME>	Optional. Rename with the name of the server such as Jazz Center
<DESC>Local File Server</DESC>	Optional. Describe the server such as Your Center for Jazz
<NETNAME>local</NETNAME>	Change to (an example) <NETNAME>docs.real.com</NETNAME> Basically, the main portion of the URL for where the tracks will exist, minus the http:\\ that you would normally place in a browser URL.

<LOCATION>%f</LOCATION>	Change to the remainder of the path to the music tracks on the server. For example, include <LOCATION>/docs/rmpdemo/%f</LOCATION> for tracks that exist on http://docs.real.com/docs/rmpdemo/ The %f tells RealJukebox to look in the tracklist for the exact filename that exists on the server. (more on tracklists later down)
You are now in the tracklist area. If you intend to use the MIP features, find the location that looks like: <TRACK> <TRACKID>Some number</TRACKID> <TITLE> Back Up Against the Wall</TITLE>	If you intend to use the MIP features, insert the URL line in between the track id and the title, so you have <TRACK> <TRACKID> Some number</TRACKID> <URL>http://docs.real.com/docs/rmpdemo/mhart.zip</URL> <TITLE> Angola</TITLE> Skip this step if you are not planning on using MIP with these tracks.
<ALBUM> <ARTIST> <GENRE>	For each track that you are including with your .rmp, put the correct information for these tags. Sample.rmp has this complete.
<FILENAME>	This is the place that the %f refers to from the location tag up above. This filename is both the filename on the server, as well as the destination filename for the user's hard drive. This example shows the innovative filename convention of "track1.mp3" which is not such a big problem. RealJukebox will always create track1(2).mp3 on the user's hard drive if necessary. However, other users may be used to a Artist Name – Album Name – Title.mp3 convention. Your choice.
	Repeat album, artist, genre, and filename for each track. Leave the other fields (size, etc) alone, as they should be correct.
Last step. At the bottom of the file my_playlist.rmp you will see the following tags: </TRACKLIST> </PACKAGE>	Add the following line between the two tags so that it shows as: </TRACKLIST> </PACKAGE>

If you want to include a skin in your RMP, you can treat it in exactly the same way as a music track – just use the relevant *.rjs file in place of a music file. The RealJukebox download manager is smart enough to figure out what to do with each file type. Check out the attached RealJukebox Skins Creation guide to see how to make a great looking skin that can be automatically loaded into RealJukebox and also provides a link back to your site.

Posting Your Content

You can include a .rmp file in your Web site using exactly the same process as that for any other. For example, to use the sample.rmp file, insert a line such as:

```
<A HREF="http://docs.real.com/docs/rmpdemo/rmpdemo">RMPdemo</A>
```

Edit your existing web page (or create a new one) to link to your new .rmp file.

Summary of Steps to Create a Valid RMP File

- Import your music into RealJukebox
- Write meta-data to your music files using Edit Track Properties
- Create a playlist
- Export the playlist to .rmp format
- Using Notepad, customize the tags in your new .rmp file so that it will work.
- Create a link on your Web page so your customers can download your new creation!

APPENDIX A – creating MIP content

MIP Features

In the .rmp file that you have just made, each track is configured to look for a .zip file at a certain URL. In sample.rmp, the name of the first .zip file was mhart.zip. Now it's time to create the .zip file with all the necessary components.

Here is what you will need:

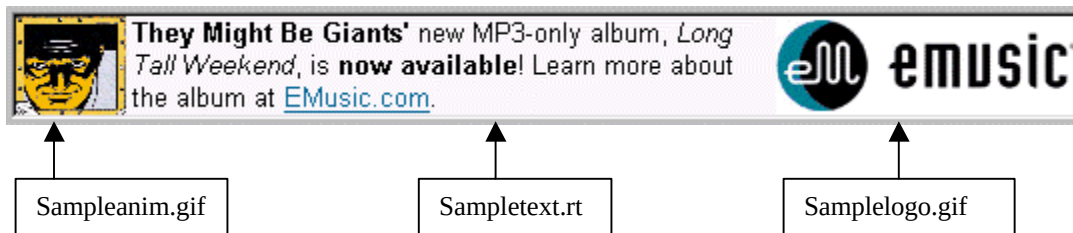
- A graphics program [MS Paint (in Start->Programs->Accessories) or Paint Shop Pro (www.jasc.com)]
- Notepad again
- The RealPlayer
- The templates that accompanied this document
- WinZip (www.winzip.com)

The rest of this section walks you through making modifications to the templates provided so that they will work for your purposes.

Note that the templates provided are the simplest execution of this idea, and that any SMIL presentation (of the correct dimensions 530x52) will work. For more information in how to produce a SMIL file for your content, visit the devzone section of www.realnetworks.com.

Open the file “sample.rjm” in Notepad. Change the tag that says <CLM>sample1.smi</CLM> to the name of the SMIL file that you are making. It is OK to leave it the same name – the rest of this document assumes that you did.

Now, you will customize the various components of the SMIL presentation to fit your content.



Sampleanim.gif

This is a basic animation that is 52x52 square. You can include any animation you like. The number of frames does not matter. The frames will automatically be played back by the renderer in RealJukebox. To replace this animation with your own, just rename your new animation the same name as the one from the template and replace the template file. (You may want to save a copy of the template file someplace else in case you want to refer to it again). To view your new animation in action in the RealPlayer, just double-click on the sample1.smi file.

Sampletext.rt

Open this file in Notepad. This text is optimized for the space available, so you can replace it with your own text of approximately the same length. Also, some of the text has a hyperlink. Replace the sample hyperlink with your own.

Samplelogo.gif

This sample logo is 131 pixels wide by 53 pixels high. Use your paint software program (such as PaintShop Pro from www.jasc.com) to get your company's logo to a size that fits here. The best way to guarantee that your size will match is to erase the sample logo from the samplelogo.gif file, leaving the white background. Then, paste your new logo on to the existing white rectangle and save. (Again, you may want to store a different copy of the original samplelogo.gif so that you can refer to it later)

ADVANCED: Editing the sample1.smi file directly. This is not a required step, but is one you may want to take anyway. Open the sample1.smi file in Notepad. You will see that it refers to the sub-files by name. If you would prefer to have your subfiles named "acmelogo.gif" rather than samplelogo.gif, then not only do you have to make the change to the .gif file itself, but you will need to correct the .smi file using Notepad.

After you are done with your edits, save the .smi file and double-click on it from Windows so that you are sure that it plays back in the RealPlayer as expected.

FINAL STEP: Create a .zip file containing all of the elements that you have made in this section, including the .rjm file, the .smi file, and all supporting content for the .smi file. Be sure to call it the name that you said you would call it in the tracklist area of the .rmp file. Refer to the Winzip documentation for more help in creating .zip files if needed.

Summary of Steps to Create MIP Content:

- Create a .RJM file that has the name of the .SMI file in it.
- Replace the sample animation
- Replace the sample text
- Include your URL in the text
- Replace the sample logo
- Edit the .SMI file if you have changed the filenames of the components
- Zip all elements together, making sure that the name matches the track list area in the .rmp file.

APPENDIX B – Printout of RMPDemo.rmp

```
<PACKAGE>
  <TITLE>RMPDemo</TITLE>
  <ACTION>download</ACTION>
  <TARGET>RMPDemo_Playlist</TARGET>
  <EXP_DATE>08/06/2000 15:00</EXP_DATE>
  <PROVIDER>
    <AUTHOR>RealJukebox</AUTHOR>
    <NAME>RealNetworks</NAME>
    <URL>http://www.real.com</URL>
    <COPYRIGHT>Copyright 1999, RealNetworks</COPYRIGHT>
    <CONTACT>RealJukebox@real.com</CONTACT>
  </PROVIDER>
  <SERVER>
    <NAME>Sample Downloadable Music</NAME>
    <DESC>This is where the downloads are</DESC>
    <NETNAME>docs.real.com</NETNAME>
    <LOCATION>/docs/rmpdemo/%f</LOCATION> <!-- %f = filename, %fid=Track id,
%lid = TrackList ID, %pid= package id -->
    <KEY>Not used</KEY>
  </SERVER>
  <TRACKLIST>
    <LISTID>3</LISTID>
    <TRACK>
      <TRACKID>MickeyHart_PlanetDrum_Angola.rmj</TRACKID>
      <URL>http://docs.real.com/docs/rmpdemo/mhart.zip</URL>
      <TITLE>Angola</TITLE>
      <ALBUM>Supralingua</ALBUM>
      <ARTIST>Mickey Hart - Planet Drum</ARTIST>
      <GENRE>Misc</GENRE>
      <FILENAME>MickeyHart_PlanetDrum_Angola.rmj</FILENAME>
      <SIZE>3581374</SIZE>
      <FORMAT>.rmj</FORMAT>
      <QUALITY>96695</QUALITY>
      <CHANNELS>2</CHANNELS>
      <DURATION>294</DURATION>
    </TRACK>
    <TRACK>
      <TRACKID>GarretSwayne_FirstGlance_E-MailFemale.mp3</TRACKID>
      <URL>http://docs.real.com/docs/rmpdemo/gswayne.zip</URL>
      <TITLE>E-Mail Female</TITLE>
      <ALBUM>First Glance</ALBUM>
      <ARTIST>Garret Swayne</ARTIST>
      <GENRE>Country</GENRE>
      <FILENAME>GarretSwayne_FirstGlance_E-MailFemale.mp3</FILENAME>
      <SIZE>3169911</SIZE>
      <FORMAT>.mp3</FORMAT>
      <QUALITY>128000</QUALITY>
      <CHANNELS>2</CHANNELS>
      <DURATION>198</DURATION>
    </TRACK>
    <TRACK>
      <TRACKID>hi-fi.rjs</TRACKID>
```

<TITLE>Hi-Fi Skin</TITLE>
<ALBUM></ALBUM>
<ARTIST></ARTIST>
<GENRE></GENRE>
<FILENAME>hifi.rjs</FILENAME>
<SIZE>17364</SIZE>
<FORMAT></FORMAT>
<QUALITY></QUALITY>
<CHANNELS></CHANNELS>
<DURATION></DURATION>
</TRACK>
</TRACKLIST>
<SIG>3a6-4ilm2-3xv</SIG>
</PACKAGE>